

## Heuristic Evaluation of LIME/Connect

(These names will be removed before the document is given to the project team. Use these letter below)

### 1. Problem

Connect is a mobile-app that serves the purpose of assisting low-income and minority students in finding their life passions by allowing students to create personal profiles based on their interests, to formulate a network with peers/mentors, to explore future professions, and to find local career opportunities.

### 2. Violations Found

**1. [H2-3 User Control and Freedom] [Severity 4] [Found by: A]**

After logging in, there is no clear way to logout of the system (except for the case where you click the back button immediately after you initially log in to Connect). Thus, if you ever need to change users in this app, you will need to fully close the app from the iPhone and re-launch it to access the login screen again. As a fix, try including an option to logout at the profiles page!

**2. [H2-5 Error Prevention] [Severity 3] [Found by: A, E, C, D]**

When the user opens a screen detailing a nearby opportunity, there is a section at the bottom of the opportunities screen (specifically, I am referring to the “Teens Exploring Tech” screen in the prototype) that gives user reviews about the opportunity being studied. Next to each review is a little “+” icon. At first, this seems like a button that would expand the screen to include more details about the user review being presented. However, the “+” actually means to add the person who gave that review to your contacts list, which is kind of awkward because I just accidentally added Jose to my contact list when I did not want to do that. This is an issue of clarity – as a fix, maybe use a better icon for adding friends?

**3. [H2-4 Consistency and Standards] [Severity 3] [Found by: A, D, C]**

The interface uses the same “+” button multiple times to mean different things throughout the program. For example, on the opportunities screen, the “+” means to add a friend; on the main map page, “+” pulls up an option “search to write review”; and on the page that details what computer science is, the “+” logo has no obvious function. To keep consistency and clarity throughout your interface, maybe make different symbols for each of the functions (this may be a prototype specific issue, but I wanted to point it out just in case).

**4. [H2-8 Aesthetic and Minimalist Design] [Severity 2] [Found by: A, E]**

When accessing the “community” tab in a user’s personal profile page, there is little organization in the list of connections the user has in his or her network. This creates an issue in that users with large networks will have trouble finding the people they need amongst the litter of other connections on the list. As a fix, try implementing a search/sort mechanism for the community tab on the user profile page!

**5. [H2-3 User Control and Freedom] [Severity 3] [Found by: A, B, C]**

When using the map screen, there is no clear way to directly search up an opportunity by name (you

can search for an opportunity to write a review for, but not to just get information about). This is an issue because the user should have the ability to just straight up find opportunities that they know exist without needing to use the map to find it. As a fix, implement a search bar on the first map screen!

**6. [H2-8 Aesthetic and Minimalist Design] [Severity 2] [Found by: A, B]**

The buttons for “Login” and “Take Quiz” (and others with that same color scheme) are kind of difficult to see, although I’m not sure if that is just because I’m R/G Color Deficient. I do recall it being an issue during your presentation, however, so maybe for the sake of giving your user a better experience choose a color scheme with more contrast?

**7. [H2-2 Match between system and the real world] [Severity 3] [Found by: C]**

When clicking the magnifying glass, I expected it to extend into a search bar, as is what happens when I tap on the magnifying glass search icon for all the other apps that I’m extremely familiar with using. However, I’m quite shocked and overwhelmed when I’m taken to a map after clicking on the search. I was expecting to simply type in a query—the map overwhelms me with a lot of information that I’m not sure what to do with.

**8. [H2-2 Match between system and the real world] [Severity 2] [Found by: C]**

It seems really redundant to have every unique user add their own summary of what the company does every time he/she adds a review to the map. This would make many different users adding reviews to the same organization quite messy and confusing, and having the user himself/herself leave a summary of the organization seems quite unreliable. I’d much better trust this information if it were pre-populated with information taken directly from the organization’s website, for example.

**9. [H2-4 Consistency and standards] [Severity 2] [Found by: C]**

On the user’s profile page, it’s very unclear to me what the heart icon represents. Are they my interests (shouldn’t those have been listed under interests already)? They also don’t seem to be organizations I’m interested in. Clear explanations of icons here would be extremely helpful.

**10. [H2-5 Error prevention] [Severity 2] [Found by: C]**

No error checking mechanism for if a user enters incorrect information about an organization when they write a review, or what happens if they try to submit a review with missing information (for example, a missing profile photo).

**11. [H2-6 Recognition rather than recall] [Severity 3] [Found by: A, C, E]**

On the community member’s profile page (Jose Ortega), all I can see is his age (college sophomore). I forget why I became friends/added him to my community members list in the first place. It would be nice to have the organizations he was involved in and his interests listed on his profile page as well. What does it mean to add someone to your network?

**12. [H2-7 Flexibility and efficiency of use] [Severity 2] [Found by: C]**

On the community member’s profile page, my only option is to click on the email icon and open up a third-party email app (presumably the iPhone’s native Mail application). This is extremely

cumbersome for the user, however; I'd much rather have an in-app messaging system. This could also lead to a lot of errors: what if the user doesn't have their Mail app on their phone configured, etc.

**13. [H2-8 Aesthetic and minimalist design] [Severity 2] [Found by: C, E]**

Profile page is oddly blank before the user has clicked on any of the three tabs (interests, opportunities, or community). I'd expect my profile to be pre-populated with information when I first open it but it's strangely blank. I'm confused as to if I should see anything, or if it's empty on purpose.

**14. [H2-9 Help users recognize, diagnose, and recover from errors] [Severity 2] [Found by: C]**

There does not seem to be a way to quickly view a list of all the opportunities around me. Messing around with the map (orient yourself so you understand where you are) can be very difficult, and I'd be very tempted to quit the app out of frustration.

**15. [H2-9 Help users recognize, diagnose, and recover from errors] [Severity 2] [Found by: C]**

When adding a review, it's unclear of what "summary" is supposed to mean. Is it a summary of how I feel about the organization, or is it a summary of what the organization actually is? (Based on the pre-populated information, it seems that "summary" refers to the latter; and I would not have known this had it not been for the Wizard-of-Oz prototyping techniques they used).

**16. [H2-1 Visibility of System Status] [Severity 2] [Found by: B, C]**

After adding a new opportunity, there is no confirmation that your opportunity had been submitted. To fix this, add some confirmation message to confirm the user's submission of to tell the user that there is a problem.

**17. [H2-6 Recognition rather than Recall] [Severity 3] [Found by: B, C]**

If the user wants to add a new opportunity, they have to remember to also touch the search bar to see the option to add a new opportunity. Since many users probably will add multiple opportunities in a spread out time, it may be confusing each time when adding a new one. One fix is to make the search bar visible at all times for searching opportunities for reviews and to have the plus sign be for adding opportunities.

**18. [H2-2 Match Between System & Real World] [Severity 2] [Found by: B, E]**

On the quiz results page, the only way to continue onto the Computer Science interest page is to click the name Computer Science, while clicking the rest of the box does nothing. The fact that not even the arrow in the box can advance the page would be confusing to some users. Fix this by making the whole box clickable.

**19. [H2-4 Consistency & Standards] [Severity 2] [Found by: B]**

On the interests landing page (the page you reach by clicking the heart icon) you can reach the Computer Science interest page by clicking anywhere on the box that says Computer Science, including the arrow. However, on the quiz results page, you can only reach the Computer Science interest page by clicking the title Computer Science. Make this consistent by fixing the quiz results

page to allow users to tap anywhere within the same box.

**20. [H2-1 Visibility of System Status] [Severity 1] [Found by: B]**

There is no indication after the quiz that their suggestions are being determined. Assuming the interest quiz becomes more detailed, this might take more than an instant, so some indication that the results are being determined would help.

**21. [H2-3 User Control & Freedom] [Severity 2] [Found by: B, E]**

There is only one direction for the quiz. Even though the current quiz is very simple, if the quiz becomes more detailed, users might want to change their answers after already clicking next. One way to fix this is to add a back button or some question tracker to let users go back and forth between quiz questions.

**22. [H2-1 Visibility of system status] [Severity 2] [Found by: E]**

How do I know how long the quiz is and when I'm at the last question? Would be good to in some way recognize when the user is at the last question in case they want to make any last minute changes before finishing the quiz.

**23. [H2-6 Recognition rather than recall] [Severity 1] [Found by: D]**

I was a little confused by the House icon when just playing around with it; I confused it for an arrow initially and thought maybe it would be like an "upload" sort of thing. Maybe making the icon even more explicitly house-like, with a cute little door, could remove that. I also thought it was a teensy bit confusing, I thought this might lead me to taking a profession quiz.

**24. [H2-6 Recognition rather than recall] [Severity 1] [Found by: B, E]**

Until clicking the pin there is no way to see what that pin is pinning. Add some kind of title on each of the pins to make it easier for the user to remember which is which.

**25. [H2-9 Help users recognize, diagnose and recover from errors] [Severity 2] [Found by: E]**

I think the filtering part of the interface needs some thought on categories and what has to be filled in and not! I know you haven't implemented that yet, but once you do, really think it through. (i.e how does the map size, if no filters added, how to prevent overflow, because hopefully there will be a lot of things in the database!)

### 3. Summary of Violations

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
[H2-1: Visibility of Status]	-	1	2	-	-	3
[H2-2: Match Sys & World]	-	-	2	1	-	3
[H2-3: User Control]	-	-	1	1	1	3
[H2-4: Consistency]	-	-	2	1	-	3
[H2-5: Error Prevention]	-	-	1	1	-	2
[H2-6: Recognition not Recall]	-	2	-	2	-	4
[H2-7: Efficiency of Use]	-	-	1	-	-	1
[H2-8: Minimalist Design]	-	-	3	-	-	3
[H2-9: Help Users with Errors]	-	-	3	-	-	3
[H2-10: Documentation]	-	-	-	-	-	0
<b>Total Violations by Severity</b>	<b>0</b>	<b>3</b>	<b>15</b>	<b>6</b>	<b>1</b>	<b>25</b>
<b>Note: check your answer for the green box by making sure the sum of the last column is equal to the sum of the last row (not including the green box)</b>						

### 4. Evaluation Statistics

*Graph by Count*

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C	Evaluator D	Evaluator E
sev. 0	-	-	-	-	-
sev. 1	-	2	-	1	1
sev. 2	2	5	8	-	6
sev. 3	4	2	6	2	2
sev. 4	1	-	-	-	-
<b>total (sev. 3 &amp; 4)</b>	5	2	6	2	2
<b>total (all severity levels)</b>	7	9	14	3	9

*Graph by Percent of Violations Found*

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C	Evaluator D	Evaluator E
sev. 0	-	-	-	-	-
sev. 1	-	66.6%	-	33.3%	33/3%
sev. 2	13.3%	33.3%	53.3%	-	40.0%
sev. 3	66.6%	33.3%	100%	33.3%	33.3%
sev. 4	100%	-	-	-	-
<b>total (sev. 3 &amp; 4)</b>	71.4%	28.6%	85.7%	28.6%	28.6%
<b>total (all severity levels)</b>	28.0%	36.0%	56.0%	12.0%	36.0%

## 5. Summary Recommendations

Overall, we really liked using the app and for the most part, thought it was pretty consistent across all of the screens. As users, our biggest sources of confusion came from the lack of instruction provided to us when we first was learning how to use it and the unclear icons. These oftentimes did not match what we thought they would do (for example, the “plus” icon had two different functions--adding a review vs. friend request--on different screens) and also had quite unexpected functions (for example, the “search” icon on the profile page opened up a map rather than a standard search).

We feel that a lot of the transitions and pages could be made clearer; for example, the member’s profile is strangely empty, as is the user’s own personal profile page. When viewing someone’s profile it would be useful to see more information (such as organizations involved with, past work experience, etc) than just name and age, otherwise as users, we forget why we friended the person in the first place. The other thing that we think you should take a look at is how the bottom < > bar is used. It seems like the forward arrow doesn’t really have a use at all, while the back one gets used a lot since “back” functionality is missing on a lot of the pages.

Finally, the map was a bit confusing and almost unnecessary. We thought it presented a lot of potential errors, would make finding the organizations a lot more difficult if we were on a time crunch, and added a lot of user-errors (having to orient yourself on the map, etc). We think it’d be a lot cleaner to make a list, which the user can then filter based on location (similar to Yelp!).

We really like the simplicity of the app and its functions; however, at this point we feel a lot of these functions have been oversimplified (i.e. adding search/review in the same screen), which right now leads to a lot of confusion for the users.

### ***Severity Ratings***

- 0 - don’t agree that this is a usability problem
- 1 - cosmetic problem
- 2 - minor usability problem
- 3 - major usability problem; important to fix
- 4 - usability catastrophe; imperative to fix